# MAR 3 0 2005

PTO/SB/21 (09-04)
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				09/746,671				
TRANSMITTAL FORM		Filing Date	December 22, 2000					
		First Named Inventor	Clay Davidson					
		Art Unit	2621					
(to be used for all correspondence after initial filling)		Examiner Name	Sherin Nakhjavan					
Total Number of Pages in This Submission 16		Attorney Docket Number	EWG-097					
	ENCLOSURES (Check all that apply)  After Allowance Communication to TC							
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First named inventor:	Clay Davidson			•	
Application No.: 09/748,671		Art Unit: 2621			
Filed: December 22, 2000		Examiner: Shervin K. Nakhjavan			
Title: Compensating for	Color Response and Transfer Function	n of Scanner and/or Printer wh	nen reading a di	gital watermark	
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. 3. Terminal disclaimer with disclaimer fee Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required. A terminal disclaimer (and disclaimer fee (37 CFR 1.20(d)) of \$ for a small entity or \$ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63). 4. STATEMENT: The entire delay in filing the required reply from the due date for the required reply until the filling of a grantable petition under 37 CFR 1.137(b) was unintentional. [NOTE: The United States Patent and Trademark Office may require additional information if there is a question as to whether either the abandonment or the delay in filling a petition under 37 CFR 1.137(b) was unintentional (MPEP 711.03(c), subsections (III)(C) and (D)).] WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. 3/30/05 Date Elmer Galbi 19,761 Typed or printed name Registration Number, if applicable 1030 SW Morrison Street 503-222-3613 Telephone Number Address Portland, OR 97205 Address Enclosures: Fee Payment Reply Terminal Disclaimer Form Additional sheets containing statements establishing unintentional delay Other: CERTIFICATE OF MAILING OR TRANSMISSION (37 CFR 1.8(a)) I hereby certify that this correspondence is being: Deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450. Transmitted by facsimile on the date shown below to the United States Patent and Trademark Office as (703) 872-9306. 3.30.05 Date aven Ballard - German Typed or printed name of person signing certificate

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# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED CENTRAL FAX CENTER

In re application of: Clay Davidson, et al.



Art Unit: 2621 Conf. No.: 1646

MAR 3 0 2005

Application No.: 09/746,671 Filed: December 22, 2000

For: Compensation

Compensating for Color Response and Transfer Function of Scanner and/or Printer When Reading a Digital Watermark

Examiner: S. Nakhjavan Date: February 2, 2005

CERTIFICATE OF MAILING

I hereby certify that this paper and the documents referred to as being attached or enclosed herewith are being deposited with the United States Postal Service

on February 2, 2005 as First Class Mail in an envelope addressed to: Mail Stop Petition, COMMISSIONER FOR PATENTS, Alexandria,

Virginia 22313-1450.

Steven W. Stewart Attorney for Applicant

#### **AMENDMENT**

Mail Stop Petition COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

## **Introductory Comments:**

This Amendment accompanies a concurrently filed Petition for Revival of an Application for Patent Abandoned Unavoidably under 37 CFR 1.137(a).

This amendment responds to the Office Action mailed July 15, 2004. Please amend the application as follows:

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# Amendments to the Claims:



- 1) canceled.
- 2) canceled.
- 3) (previously presented): In a system that includes a scanner that includes a down loadable tone map, a scanner driver that includes a calibrated tone map for the scanner and user controls which control modification of said calibrated tone map to generate a user adjusted tone map, said scanner generating an image which has been modified by said user controlled tone map,

an improvement comprising a program to reverse an action on said image of the user modifications to said calibrated tone map.

4) (previously presented): A method of reading a watermark or pattern from a digital image generated by a scanner from a hard-copy image, said digital image most nearly matching said hard-copy image when the image generated by said scanner is modified in accordance with a calibrated tone map, said method comprising:

down-loading into said scanner a user modified tone map,

modifying said image in said scanner with said user modified tone map,

transferring said scanner modified image to a computer communicating with said
scanner.

modifying said modified image with a tone map that reverses any differences between said calibrated tone map and said user modified tone map to generate a reverse modified tone map, and

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reading said watermark or detecting said pattern in said Image.



5) (previously presented): A method of controlling operations with data carried in a physical image comprising:

scanning said physical image with a scanner which has an associated calibrated tone map which will compensate for differences between an image generated by said scanner and characteristics of said physical image,

adjusting said calibrated tone map in accordance with user supplied parameters to produce a user adjusted tone map,

applying said user adjusted tone map to said image to produce a user desired image,

applying a tone map to said user desired image which is an inverse of adjustments made to said calibrated tone map to produce said user adjusted tone map, to generate an image that corresponds to the image generated by said scanner that is compensated by said calibrated tone map,

reading at least one characteristic of said image, and controlling said operations with the result of said reading step.

- 6) (currently amended): The method recited in claim 5 wherein said reading comprises reading step reads a digital watermark from said image.
- 7) (currently amended): The method recited in claim 5 wherein said reading comprises detecting step detects a shape in said image.

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- 8) (currently amended): The method recited in claim 5 wherein said reading comprises attempting step reads attempts to both read a digital watermark from said image and to detect a shape in said object.
- 9) (previously presented): A method of operating on an image comprising: generating a first digital image from a physical document, applying a first tone map to said image to generate an adjusted digital image, applying a second tone map to said adjusted digital image to generate a corrected digital image, said second tone map adapted to reverse changes made to said first digital image that differ from changes specified by reference data, and operating upon said corrected digital image to determine characteristics of said corrected digital image.
- 10) (original): The method recited in claim 9 wherein said corrected digital image is operated upon to read a digital watermark from said corrected digital image.
- 11) (previously presented): The method recited in claim 9 wherein said corrected digital image is operated upon to detect a pattern in said corrected digital image.
  - 12) (previously presented): A system which includes:
- a scanner which has an ability to apply a tone map to a scanned image, and a data source which calculates a user adjusted tone map by applying to a calibrated tone map user established parameters, said data source having an ability to down load said user adjusted tone map to said scanner, said scanner adapted to apply said user adjusted tone map to said scanned image to generate an adjusted image,

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an inverse user adjustment program that generates a corrected image by applying to said adjusted image a tone map that reverses changes made to said calibrated tone map to generate said user adjusted tone map, and a program for detecting characteristics of data in said image.

- 13) (original): The system recited in claim 12 wherein said program for detecting characteristics of data in said image comprises a watermark reading program.
- 14) (original): The system recited in claim 12 wherein said program for detecting characteristics of data in said image comprises a program for detecting shapes in said image.
- 15) (previously presented): A system for operating on an image comprising: an image acquisition device for generating a first digital image from a physical document, said image acquisition device applying a first tone map to said first digital image to generate an adjusted digital image,

an inverse user adjustment program for applying a second tone map to said adjusted digital image to generate a corrected digital image, said second tone map adapted to reverse changes made to said first digital image that differ from changes specified by a calibrated tone map, and

a program which operates upon said corrected digital image to determine characteristics of said corrected digital image.

16) (original): The system recited in claim 15 wherein said program which operates upon said corrected image is a watermark reading program.

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- 17) (previously presented): The system recited in claim 15 wherein said program which operates upon said corrected image is a program which detects shapes in said corrected image.
- 18) (previously presented): A system for operating on an image comprising: acquisition means for acquiring a first digital image from a physical document, said acquisition means applying a first tone map to said first digital image to generate an adjusted digital image,

means for applying a second tone map to said adjusted digital image to generate a corrected digital image, said second tone map adapted to reverse changes made to said first digital image that differ from changes specified by a calibrated tone map, and detection means for operating upon said corrected digital image to determine characteristics of said corrected digital image.

- 19) (original): The system recited in claim 18 wherein said detection means comprises a watermark reading program.
- 20) (previously presented): The system recited in claim 18 wherein said acquisition means comprises a scanner.
- 21) (previously presented): The system recited in claim 18 wherein said detection means comprises a program to detect a shape in an image.
  - 22) canceled.

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- 23) (previously presented): The system recited in claim 18 wherein said acquisition means comprises a ScanJet 6300c scanner.
- 24) (currently amended): A method of creating a digital image that corresponds to an image on a physical document, said method comprising:

scanning said physical document with a scanner to produce a first digital image, wherein a frequency response of said scanner decreasing at higher frequency values, and

filtering said first digital image with a filter which compensates for the frequency response of said scanner.

25) (previously presented): A system which includes:

a TWAIN compliant scanner which has an ability to apply a tone map to a scanned image, and a TWAIN data source which calculates a user adjusted tone map by applying to a calibrated tone map user established parameters, said TWAIN data source having an ability to down load to said scanner said user adjusted tone map, said scanner adapted to apply said user adjusted tone map to said scanned image to generate an adjusted image,

an inverse user adjustment program that generates a corrected image by applying to said adjusted image a tone map that reverses changes made to said calibrated tone map to generate said user adjusted tone map, and

a computer program which examines characteristics of said corrected image.

26) (original): The system recited in claim 25 wherein said program is adapted to read a digital watermark in said image.

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27. (previously presented): A method comprising:

receiving image data from an optical scanner, wherein the image data corresponds to a physical object, and wherein the image data comprises adjustments reflecting user-dependent factors;

adjusting the image data to counter-balance at least some of the adjustments attributable to the user-dependent factors, said adjusting yielding adjusted image data; and

analyzing the adjusted image data to find at least one of machine-readable indicia and a predetermined pattern.

- 28. (previously presented): The method of claim 27, wherein the optical scanner comprises a digital camera.
- 29. (previously presented): The method of claim 27, wherein the machinereadable indicia comprises digital watermarking.
  - 30. (new): A method comprising:

receiving a media signal, wherein the media signal comprises artifacts introduced by a transmission path;

modifying the media signal to reduce or alter the artifacts, wherein said modifying provides a modified media signal; and

analyzing the modified media signal to obtain a machine-readable code embedded in the media signal or to identify a predetermined pattern arranged in the media signal.



- 31. (new): The method of claim 30, wherein the machine-readable code comprises digital watermarking.
- 32. (new): The method of claim 30, wherein the transmission path comprises at least one of a printer, scanner and digital camera.
- 33. (new): The method of claim 30 wherein said modifying comprises at least two different types of modification.
- 34. (new): The method of claim 30, wherein the media signal comprises artifacts intentionally introduced by a user, and wherein said modifying reduces the artifacts intentionally introduced by the user.
- 35. (new): The method of claim 30 wherein the media signal comprises image data.



#### Claim Status

Claims 3-21, 23-35 are pending in the present application. Claim 2 has been canceled without prejudice and without conceding the propriety of the outstanding rejection.

#### Allowed Claims

Applicants greatly appreciate the indication that claims 3-21 and 23-29 are allowed. Amended claims 6-8 and 24 are also believed to be in condition for allowance. (These claims are amended in an editorial manner and not in response to the art or any formal requirements. Thus, no forfeiture of equivalent arrangements is intended.).

### **Art-based Rejection**

The rejection of claim 2 over U.S. Patent No. 5,771,317 (hereafter "Edgar") is deemed moot since claim 2 is canceled herein. (Nevertheless, we respectfully traverse the rejection.).

New claim 30 is loosely related to claim 2. We respectfully submit that Edgar does not teach or suggest the combination recited in claim 30. For example, Edgar is not understood to teach or suggest a method comprising: receiving a media signal, wherein the media signal comprises artifacts introduced by a transmission path; modifying the media signal to reduce or alter the artifacts, wherein said modifying provides a modified media signal; and analyzing the modified media signal to obtain a machine-readable code embedded in the media signal or to identify a predetermined pattern arranged in the media signal.

We respectfully request that claim 30 be allowed.

Favorable consideration of dependent claims 31-35 is also respectfully requested.

## Information Disclosure Statement

An Information Disclosure Statement (IDS) and Form 1449 are submitted concurrently herewith. Consideration of the information disclosed therein is respectfully requested.

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# Conclusion

The present application is believed to be in condition for allowance. Nevertheless, the Examiner is invited to telephone the undersigned at 503-469-4685 if any issue remains. The Office is authorized to charge our deposit account no. 50-1071 any fees necessary for consideration of this Amendment or the accompanying petition.

Date: February 2, 2005

Customer No. 23735

Phone: 503-469-4685 FAX: 503-469-4777 Respectfully submitted,

DIGIMARC CORPORATION

Steven W. Stewart Registration No. 45,133

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Receipt is hereby acknowledged by the U.S. Patent and Trademark Office of the following: Petition for Revival of an Application for Patent Abandoned Unavoidably Under 37 CFR\_137 (a), Adequate Showing of the Cause of the Unavoidable Delay, copy of docket record (3 pages), copy of 5/203 Power of Attorney, Statement of Elmer Galbi, Amendment, Internation Disclosure Statement, Form PTO-1449, and Transmittal Lister with deposit account authorization

Inventor: Clay Davidson Appn No. 09/746,671 Filed December 22, 2000

SWS:dks EWG-097S February 2, 2005

